A PRESENTATION OF THE SCHEMATIC DESIGN FOR THE COLLEGE OF BUSINESS BUILDING WILL TAKE PLACE AT THE DECEMBER MEETING

ISU B-1

MEMORANDUM

To: Board of Regents

From: Board Office

Subject: Register of Iowa State University Capital Improvement Business Transactions for Period of November 17, 2000 through December 14, 2000

Date: December 4, 2000

Recommended Action:

Approve the Register of Capital Improvement Business Transactions for Iowa State University.

Executive Summary:

Iowa State University requests approval of the schematic design and project description and budget ($24,575,000) for the **College of Business Building** project which would construct a facility in the southeast corner of the central campus to consolidate the functions of the College of Business. Representatives of the University and the project architects, Zimmer Gunsul Frasca Partnership, will attend the Board meeting to present the design for the project. A booklet outlining the building design is included with the Board's docket materials.

The University requests approval of a revised project budget for **The Knoll Renovations 2000** project ($1,500,000) which would incorporate the correction of a number of critical infrastructure deficiencies into the renovation project for the facility. The University also requests approval of a project description and budget for the **Utilities—South Campus Infrastructure Improvements** project ($245,000) which would include work to serve The Knoll renovation project.

The University requests approval of a revised project budget for the **Hawthorn Court Development** project ($55,234,029) for an increased project scope to include the installation of security systems and the purchase of mattresses.

The University requests approval of the following project descriptions and budgets and architect/engineer agreements:

Parking Lots 93 and 96 Rehabilitation project ($408,200) and engineering agreement with Snyder and Associates ($10,397) for the reconstruction of selected parking areas which serve the College of Veterinary Medicine facilities; and

Molecular Biology Building—Room 0124 Remodeling project ($400,000) and design agreement with Architects Smith Metzger ($45,000) for the renovation of space for the Plant Sciences Institute.

The University requests approval of the following architect/engineer agreements with:

InVision Architecture ($163,200) for the **North Campus Child Care Facility** project; and

Alvine and Associates ($28,000) for the **Telecommunications—Inside Plant Systems Upgrade** project.

Background and Analysis:

College of Business Building

Project Summary

	Amount	Date	Board Action
Permission to Proceed		July 1999	Approved
Architectural Agreement			
Pre-Design Through Construction			
(Zimmer Gunsul Frasca Partnership)	$ 1,887,000	May 2000	Approved
Program Statement and Proposed Location		Oct. 2000	Approved
Schematic Design		Dec. 2000	Requested
Project Description and Total Budget	24,575,000	Dec. 2000	Requested

This project would construct a facility totaling 109,860 gross square feet (65,917 net square feet) to house the College of Business, whose programs, the University believes, are currently located in inadequate and dysfunctional space in several existing University buildings and off-campus space. The project would accommodate the University's newest and fastest-growing college by providing office, laboratory, and classroom spaces to meet the unique needs of modern

business programs. The University states that the building would provide an identity for the College of Business and create a sense of community for the College's students, faculty and staff. Partial funding for the construction project in the amount of $10.9 million in state funds is the Board's top priority in its FY 2002 capital budget request. (The remaining funds would be provided from private sources.)

Building Site

The University proposes to construct the building in the southeast corner of the central campus area near the intersection of Union Drive and Knoll Road; this is within the general area approved by the Board in October 2000. A map showing the specific siting of the building within this area is included as Attachment A. This specific location was selected in consideration of the mature landscaping of the central campus area and the need to integrate the building with the natural contours of the site. At this location, the building would serve as a gateway structure for the east campus area, as it would be the first academic building that would be visible from the Knoll Road campus entrance. The site is also the intersection of the University's social, academic and residential districts.

The site is currently occupied by Osborn Cottage. This building houses the University's Honors Program, which is scheduled to relocate to a new facility. The University's original plans included demolition of Osborn Cottage after it was vacated. However, the University reports that Habitat for Humanity has expressed an interest in relocating Osborn Cottage for its programs. If Habitat for Humanity decides not to use Osborn Cottage, the University will demolish the building in an appropriate timeframe to facilitate the construction project.

The University reports that there are approximately 100 trees in the general area which was considered as the site for the Business Building (approximately 60 mature trees and 40 smaller trees). The University indicates that the existing trees were used as a guide to place the building, with a goal of minimizing the number of trees that would be impacted. Even though the facility would be placed on the eastern edge of the site, the University reports that approximately 40 trees would need to be removed to accommodate the building at this location. This would likely include 20 mature trees (eight deciduous trees and 12 coniferous trees) plus approximately 20 smaller trees. The University reports that some of these trees are in decline. A site map which illustrates an estimation of the trees that will be removed from the site is included as Attachment B. To the extent possible, the trees would be relocated to other campus locations.

Following construction of the facility, trees would be planted along Union Drive to provide filtered views of the building, define the outdoor gathering spaces, and mitigate the overall scale of the building. The new plantings would be consistent with the character of this area of campus.

Building Access

The two main building entrances would be located along the west wall at the second level and along the east wall at the first level. The existing campus sidewalks in the area would be maintained and extended to provide access to the building and facilitate travel across campus. New sidewalks and a small plaza area would be developed to serve the east building entrance. A small entry plaza would also be created near the west building entrance. The building's atrium stairway, which connects the east and west entrances, would facilitate the flow of pedestrian traffic through this area of campus.

Direct automobile access to the building would not be available. The University has indicated that an existing parking area to the north of the site and east of Curtiss Hall would serve the Business Building. According to the University, this parking area, which would be served by sidewalk connections to the Business Building, would meet Americans with Disabilities Act access requirements. Existing parking areas in a lot located across Union Drive to the southeast of the Business Building site, and in the Memorial Union ramp to the south of the site, would also serve the building.

Building Exterior

The building would consist of a four-story, L-shaped structure with an exterior design intended to create an architectural image that is monumental in scale when viewed from Union Drive or the central campus area. This would establish an identity for the College of Business, consistent with the other major academic colleges on campus. In addition, the architectural image is designed to be respectful of the existing historic buildings located around the central campus area by utilizing familiar forms and materials.

The main body of the building would consist of a light-colored brick similar in color to the brick of the Campanile. The building would also feature large glass curtain wall areas extending from the two main building entrances along each side of the west wing, and along the south wall of the north wing. A smaller glass curtain wall would be used along the south wall of the west wing. This use of glass would maximize the flow of natural sunlight into the building.

The building's two main entrances on each side of the west wing would be identified with tall limestone columns which would extend the length of the glass curtain wall areas of the wing. This feature would replicate the columned entries of other central campus buildings.

The majority of the building roof would consist of a single-ply rubber membrane, low-sloped roofing system with a slope of one-quarter inch per foot. The University has indicated that the roof area was designed with consideration for the architectural character of the facility relative to other academic buildings in this area of campus. The University has further indicated that the selected design is also the most cost-effective alternative for the project. A smaller roof area, which would enclose the building's fifth level mechanical penthouse, would be constructed of a standing seam metal material. The selected roofing materials would be similar to those of nearby Curtiss Hall and the Memorial Union. The University reports that the roofing materials were selected with consideration of the performance and maintenance requirements of the materials; however, detailed data have not been provided to the Board Office.

Building Interior

The building has been designed with interior spaces that would encourage interaction and collaboration, and create a sense of community among the College's students and faculty. The west wing of the building would house the instructional spaces including a large auditorium and three classrooms on the first floor, the second level of the auditorium and four classrooms on the second floor, and six classrooms with terraced seating on the third floor.

The north wing of levels one through three would provide office areas for the College and departmental administrative offices, graduate and undergraduate student services, the Center for Career Advising, and the Outreach Center. All faculty offices would be located on the fourth level to encourage interaction among faculty members. A classroom and graduate student offices are also located on the fourth level to integrate further the teaching and office environments.

The north and west wings would be joined by a three-story atrium space with a large open stairway that would serve levels one through three. This stairway, which would accommodate the heavy traffic of the instructional areas on the three levels, would be directly accessible from the two main building entrances

located along the east and west walls. A separate stairway, which would serve levels three and four only, would be located to the north of the atrium space. Two additional stairways, located in the southeast and northeast corners of the building, and two elevators located near the atrium would provide access to all levels of the building.

A large, multi-use Commons area would be located in the southwest area of the building on level two and open to level three. This area has been designed to pull away from the main building to express its special nature. The Commons would be used primarily for student reading or lounging, and it would include a small library and coffee shop with limited food offerings. The Commons would also serve more formal receptions and other gatherings of the College.

A number of informal areas, consisting of window seats and seating nooks, would be located along the building corridors near the entrances to the classrooms and the auditorium, within the atrium area, and at the ends of the building corridors.

The building would include a total of eight fully-accessible restroom areas (four male and four female); one set of restrooms would be located on each floor. The restrooms would provide a total of 21 female toilet fixtures, ten male toilet fixtures, 11 urinals, and 11 male and 11 female lavatories. The University has indicated that the number of restroom fixtures is consistent with the State Building Code based on total occupancy of the building.

The following is the space summary for the College of Business Building:

Classrooms and Laboratories	25,281	
Faculty/Staff Offices	13,265	
College and Support Spaces	11,760	
College Administration	3,645	
Departmental Administration	3,430	
Undergraduate Programs	2,696	
Outreach Center	2,305	
Career Services	2,145	
Graduate Programs	1,390	
Total Net Assignable Space	**65,917**	nsf
Total Non-Assignable Space (Maintenance, Mechanical/Electrical, Restrooms, Circulation)	43,943	
Total Gross Square Feet	**109,860**	gsf
Net-to-Gross Ratio	**60 percent**	

The building program approved by the Board in October 2000 provided a total of 100,000 gross square feet (60,760 net square feet) for the College of Business Building. As the schematic design developed, the building program was modified to provide additional non-assignable circulation space, which would permit students to move efficiently and safely throughout the building during class change periods. In addition, the revised program reflects the incorporation of the seating nooks into the corridor areas which has increased slightly the amount of assignable space. As a result, the schematic design totals 109,860 gross square feet (65,917 net square feet), which is an increase of approximately 10,000 gross square feet (10 percent) and approximately 5,200 net square feet (8.5 percent) from the approved building program. The square footage of the remaining assignable areas has remained relatively consistent with the building program.

Project Budget

The project budget of $24,575,000 is an increase of $1,875,000 over the University's previous estimate of $22,700,000, which is the all-funds amount shown in the Board's FY 2002 capital budget request. The additional costs resulted from selection of the specific building site, which was necessary to determine the specific construction methods, utility requirements, the scope of the tree removal, and all associated costs. In addition, the specific building materials were not selected prior to development of the preliminary estimate.

The project budget includes funding from the 2000 General Assembly for project planning ($300,000), additional capital appropriations requested for FY 2002 for construction ($10,900,000), with the remainder to be provided from private sources ($13,375,000).

Project Budget

Construction Costs	$ 18,882,500
Professional Fees	3,410,800
Movable Equipment	1,550,000
Relocation	50,000
Project Contingency	681,700
TOTAL	$ 24,575,000
Source of Funds:	
ISU Foundation	$ 13,375,000
FY 2002 Capital Request	10,900,000
Capital Appropriation (Planning)	300,000
	$ 24,575,000

Project Schedule

The site development work to support the building (installation of utility infrastructure and site grading) is scheduled to begin in September 2001 and be completed in November 2001. Construction of the building would follow the site development work and would continue for two years, with scheduled occupancy in November or December of 2003.

The Knoll Renovations 2000

Project Summary

	Amount	Date	Board Action
Project Description and Total Budget	$ 950,000	July 2000	Approved
Architectural Agreement—Schematic Design through Construction (Baldwin White Architects)	129,900	July 2000	Approved
Revised Project Budget	1,500,000	Dec. 2000	Requested

This project would be undertaken to improve the efficiency of The Knoll, an historic building and symbolic landmark, to accommodate the various functions which are held there. The initial project budget approved in July 2000 included the upgrade of the kitchen area to a commercial-level facility to meet the needs of the dining/banquet functions of the facility; reconfiguring of the north end of the facility to provide improved circulation for guests, family, and kitchen supplies; and development of a new family room, family kitchen and dining area on the second level.

While the project design was being developed, the University evaluated the existing building systems and reviewed alternatives for addressing the critical deferred maintenance needs of the facility. These needs fall into the general category of infrastructure deficiencies, with the most critical being an inadequate and outdated heating, ventilating and air conditioning system; the absence of a required fire safety egress from the third floor; and inadequate electrical power and telecommunications systems. There is also a need to paint and re-carpet the second and third floor living areas prior to occupancy by the next president.

The existing heating system is original to the 100 year old structure. The gas-fired boiler that supplies hot water to the system has exceeded its life expectancy and is at risk of failing. The University reports that energy consumption for this inefficient heating system is the highest per square foot of any campus building.

Air conditioning for the first floor is provided by several package direct expansion cooling units that are installed on the ground outside the building. This method has proven to be inadequate to address cooling needs when large numbers of guests are entertained in this public area of the building. Air conditioning on the second and third floors, including the bedrooms, is provided by window air conditioning units. This system is inefficient, inadequate and unreliable. There is also inadequate humidity control in the building.

The University proposes to correct the inadequacies of these building systems by installing a new chilled and hot water system. This would include installation of fan coil air handlers sized and zoned appropriately, installation of a new energy efficient gas-fired hot water boiler, and connection of the facility to the campus chilled water system. The proposed improvements would provide a high degree of system reliability and comfort control, improved energy efficiency, and quiet operation. The University has indicated that this system provides the best alternative to address the heating and cooling needs for the first floor public area of the facility.

The third floor of the building has been used for a variety of functions over the years, including family bedrooms and the president's study. Current building codes prohibit occupancy of this floor because there is only one stairway for egress. The University proposes to address this deficiency by installing an automatic fire sprinkler system throughout the entire structure; sprinklering is an acceptable substitute to construction of a second egress stairway which would be difficult to do without severely compromising usable space. The sprinkler system would provide life safety for the occupants, allow legal occupancy of the third floor, and provide fire protection for this invaluable University landmark. The proposed renovation work would not substantially change the existing living spaces on the upper floors of the facility.

The electrical and telecommunications systems in the building do not meet current codes or University standards. The University believes that it is imperative that The Knoll be equipped with voice and data communication capabilities, consistent with the rest of the University campus, to accommodate the functions and occupants of the building. The University proposes to install replacement systems to meet these needs.

Installing the new building systems in The Knoll would be a challenge since the work would involve the integration of equipment, conduit, piping, and ductwork inconspicuously within this historic structure. In addition, the walls and ceilings must be restored to their original condition after the systems are installed. These construction challenges would result in higher costs than a standard renovation project.

Since The Knoll is currently unoccupied and because of the economies that can be realized by combining the work into one construction contract, the University recommends an increase in the scope of the renovation project to include the needed infrastructure improvements, with an increase in the budget to $1,500,000. The University has indicated that the project should extend significantly the useful life of The Knoll.

The source of funds for the initial project budget is private contributions through the ISU Foundation. While the ISU Foundation is continuing its fund raising efforts for the project, the University proposes to add Income from Treasurer's Temporary Investments as a second source of funds. The University has indicated that to the extent that additional private fund raising efforts are successful, commitments for Income from Treasurer's Temporary Investments would be reduced.

Consistent with approval of the initial project in July 2000, it is recommended that the University continue to provide periodic project updates to the Board Office.

Project Budget

	Revised Budget July 2000	Revised Budget Nov. 2000
Construction Costs	$ 727,500	$ 1,284,500
Professional Fees	183,500	186,000
Contingency	39,000	29,500
TOTAL	$ 950,000	$ 1,500,000
Source of Funds:		
ISU Foundation	$ 950,000	$ 950,000
Income from Treasurer's Temporary Investments	0	550,000
TOTAL	$ 950,000	$ 1,500,000

Utilities—Southeast Campus Infrastructure Improvements
Source of Funds: Income from Treasurer's Temporary Investments

Project Summary

	Amount	Date	Board Action
Project Description and Total Budget	$ 245,000	Dec. 2000	Requested

This project would provide improvements to the chilled and domestic water mains in the southeast area of campus, and would extend the water mains to provide service to future renovation and new construction projects. A portion of this work would serve The Knoll Renovations 2000 project.

Project Budget

Construction Costs	$ 216,860
Professional Fees	24,000
Project Contingency	4,140
TOTAL	$ 245,000

Hawthorn Court Development

Project Summary

	Amount	Date	Board Action
Phases 1 and 2			
Permission to Proceed (Phase 1)		June 1998	Approved
Architectural/Engineering Agreement—Schematic Design (Rietz Consultants)	$ 580,040	Sept. 1998	Approved
Permission to Proceed (Phase 2)		Oct. 1998	Approved
Program Statement		Oct. 1998	Approved
Schematic Design		Dec. 1998	Approved
Phase 1			
Project Description and Total Budget	25,913,000	Sept. 1998	Approved
Revised Total Project Budget	26,733,700	Dec. 1998	Approved
Revised Total Project Budget	30,123,000	Feb. 1999	Approved
Architectural/Engineering Agreement—Design Development (Rietz Consultants)	1,454,689	Dec. 1998	Approved
Phase 2			
Project Description and Total Budget	25,430,500	Dec. 1998	Approved
Revised Total Project Budget	24,730,500	Feb. 1999	Approved
Architectural/Engineering Agreement—Design Development (Rietz Consultants)	1,027,433	Oct. 1999	Approved
Revised Project Budget (Phases 1 and 2 Combined)	54,834,029	March 2000	Approved
Revised Project Budget (Phases 1 and 2 Combined)	55,234,029	Dec. 2000	Requested

The Hawthorn Court Development project includes construction of 23 apartment units with 1,992 beds and a multi-purpose Community Center on the north side of campus. The revised budget of $55,234,029, an increase of $400,000, reflects an increase in the project scope to include the installation of electronic security systems for the main entrances of the 11 completed apartment buildings and the new Community Center. The budget increase will also provide for the purchase of 984 mattresses for the Phase 2 apartment buildings currently under construction.

Project Budget

	Revised Budget March 2000	Revised Budget Dec. 2000
Construction Costs	$ 48,177,699	$ 48,467,699
Professional Fees	3,426,610	3,426,610
Movable Equipment	1,300,000	1,410,000
Contingency	1,929,720	1,929,720
TOTAL	$ 54,834,029	$ 55,234,029
Source of Funds:		
Dormitory Revenue Bonds	$ 53,194,029	$ 53,194,029
Income from Utility Enterprise	1,400,000	1,400,000
Dormitory Surplus Funds	240,000	640,000
TOTAL	$ 54,834,029	$ 55,234,029

Parking Lots 93 and 96 Rehabilitation
Source of Funds: Parking Systems

Project Summary

	Amount	Date	Board Action
Project Description and Total Budget	$ 408,200	Dec. 2000	Requested
Engineering Agreement (Snyder and Associates)	10,397	Dec. 2000	Requested

This project will reconstruct Parking Lot 96 which serves the College of Veterinary Medicine, and the northern parking area and driveway of Parking Lot 93 which serves the University Child Care Center at the College. The existing asphalt areas were constructed with the College of Veterinary Medicine facilities in the late 1970s and are in poor condition.

The northern area of Parking Lot 93 has deteriorated in part due to school bus traffic at the child care facility. Parking Lot 96 is a faculty lot which was overlaid within the past 15 years to extend its life and defer the reconstruction work. The overlay has now exceeded its life expectancy which has resulted in potholes and cracking of the asphalt material, reducing the pavement to gravel. This is an indication that the base material is no longer intact and reconstruction is necessary to restore the area. Both parking lots will be reconstructed in asphalt, utilizing existing layouts and drainage systems.

Permission to proceed with the project was not required since the project budget does not exceed $1,000,000.

The University requests approval to enter into an agreement with Snyder and Associates to provide design services for the project. The agreement provides for a fee of $10,397, including reimbursables.

Project Budget

Construction Costs	$ 370,000
Professional Fees	32,400
Project Contingency	5,800
TOTAL	$ 408,200

Molecular Biology Building—Room 0124 Remodeling
Source of Funds: General University Funds

Project Summary

	Amount	Date	Board Action
Project Description and Total Budget	$ 400,000	Dec. 2000	Requested
Architectural Agreement (Architects Smith Metzger)	45,000	Dec. 2000	Requested

This project will remodel approximately 905 square feet of space in the basement of the Molecular Biology Building for use by the Plant Sciences Institute. The project scope includes remodeling of an existing unassigned room to provide a standard laboratory layout, installation of two exhaust hoods, and mechanical and electrical upgrades.

The University requests approval to enter into an agreement with Architects Smith Metzger to provide full design services for the project. The agreement provides for a fee of $45,000, including reimbursables.

Permission to proceed with the project was not required since the project budget does not exceed $1,000,000.

Project Budget

Construction Costs	$ 322,670
Professional Fees	67,330
Project Contingency	10,000
TOTAL	$ 400,000

North Campus Child Care Facility
Source of Funds: Income from Treasurer's Temporary Investments

Project Summary

	Amount	Date	Board Action
Permission to Proceed		July 2000	Approved
Architectural Agreement (InVision Architecture)	$ 163,200	Dec. 2000	Requested

This project will construct a new, modern child care facility in the University Village student apartment (family housing) community north of campus to replace the aging child care facilities located in West Pammel Court. It is anticipated that the majority of the child care programs currently located in Pammel Court, including the University Community Child Care, Center for Child Care Resources, and Comfort Zone (Sick Child Care Program), will be located in the new facility. The relocation of the facility will improve the accessibility of child care services to the University community and provide a larger facility with greater capacity to meet the increasing demand for child care services. The estimated cost of the project is $1.8 million.

The University received expressions of interest from 10 firms to provide design services for the project. Four firms were selected for interviews with the University Architectural Selection Committee in accordance with Board procedures for projects over $1 million. The University requests approval of the selection of InVision Architecture to provide design services for the project. The firm is recommended by the University based on its experience in the design of similar projects and its knowledge of the facilities to be constructed.

The University requests approval to enter into an agreement with InVision Architecture for the project. The agreement will provide all standard design services for a maximum fee of $163,200, including reimbursables.

The University will return to the Board at a future date for approval of the project description and budget.

Telecommunications—Inside Plant Systems Upgrade
Source of Funds: Telecommunications Facilities Revenue Bonds and Telecommunications Improvement and Extension Funds

Project Summary

	Amount	Date	Board Action
Project Description and Total Budget	$ 1,500,000	July 1999	Approved
Engineering Agreement (Alvine and Associates, Omaha, NE/ Iowa City, IA)	28,000	Dec. 2000	Requested

This project will upgrade the communications infrastructure in a number of campus buildings. This work will address various deficiencies such as the location of equipment entrances into the buildings, system security issues, outdated wiring that will not support current technology, and the lack of video and backup power systems. The University has identified and prioritized the various deficiencies associated with the communications infrastructure for each campus building.

The University attributes the delay since approval of the project description and budget in July 1999 to a number of factors. This includes the need to complete the upgrade of the external telecommunications infrastructure which serves the campus buildings prior to addressing the systems within the individual buildings, the evaluation and updating of the University's telecommunications standards, and development of criteria for determining the priority order for the building upgrades.

The University requests approval to enter into an agreement with Alvine and Associates to provide engineering services for replacement of the telecommunications infrastructure in the College of Design and Applied Science II buildings. The agreement will provide for a maximum fee of $28,000, including reimbursables.

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Included in the University's capital register for Board ratification are nine project budgets under $250,000, three construction contracts awarded by the Executive Director, and the acceptance of five completed construction contracts. These items are listed in the register prepared by the University and are included in the Regent Exhibit Book.

Sheila Lodge

Approved: Frank J. Stork

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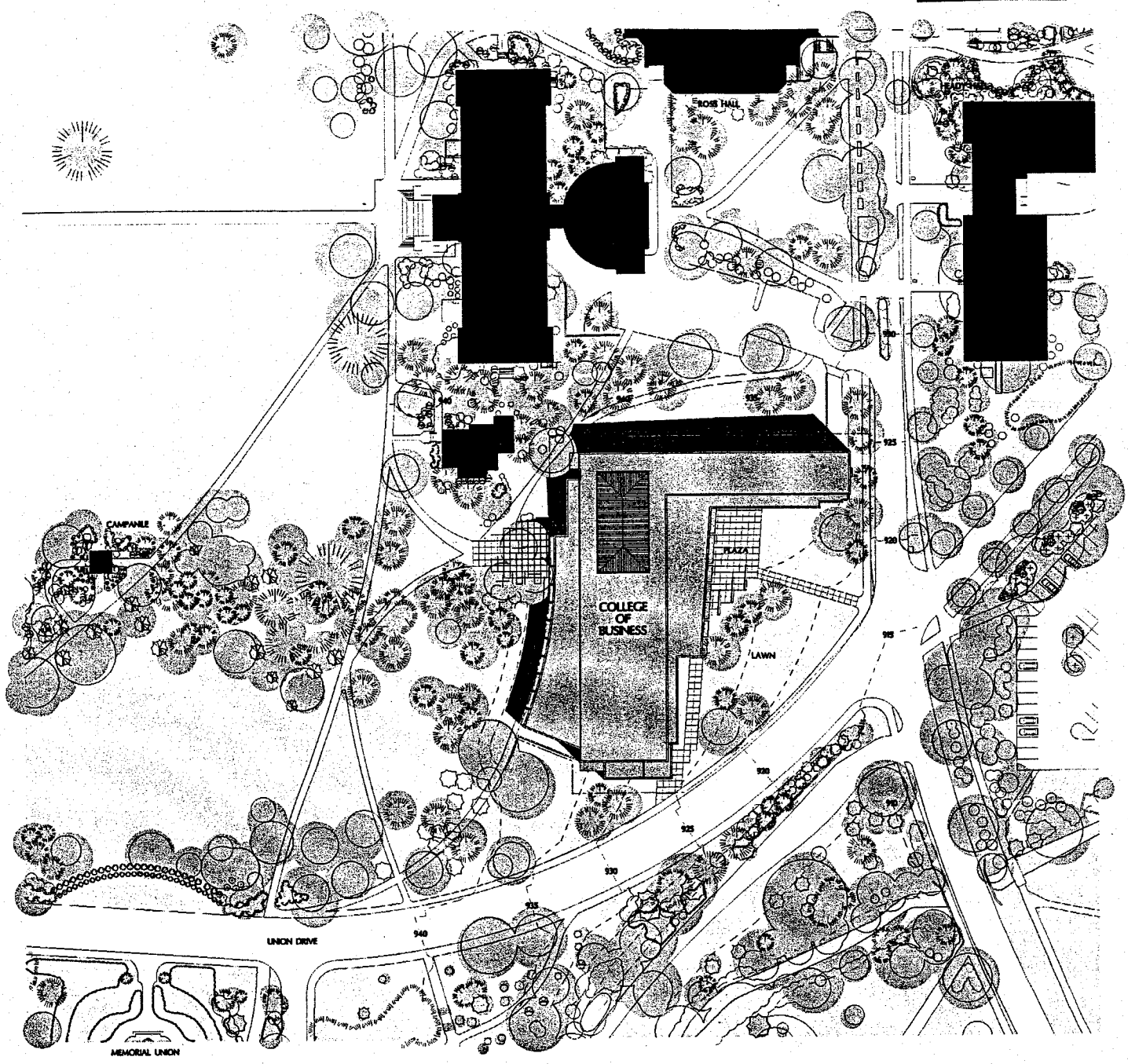
Attachment A



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SITE PLAN

IOWA STATE UNIVERSITY

College of Business Building

ZIMMER GUNSUL FRASCA PARTNERSHIP

Attachment B